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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,617	03/17/2004	Arthur J. Jur	03-PDA-328(220)	4577
<div>7590 09/25/2007 Martin J. Moran, Esquire Eaton Electrical, Inc. Technology &amp; Quality Center 170 Industry Drive, RIDC Park West Pittsburgh, PA 15275-1032</div>			<div>EXAMINER BAUER, SCOTT ALLEN</div>	
			<div>ART UNIT 2836</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 09/25/2007</div>	<div>DELIVERY MODE PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/802,617	<b>Applicant(s)</b> JUR ET AL.	
	<b>Examiner</b> Scott Bauer	<b>Art Unit</b> 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn et al. (US 4,017,698) in view of Young (US 5,414,584).

With regard to claim 1, Kuhn et al. teaches a electrical protective device comprising: an enclosure (12); a frame assembly (27, 28, 40 & 42) disposed within said enclosure, said frame assembly sized so that there is a gap between said frame assembly and said enclosure (as shown in Fig. 3); a network protector (10) having plurality of electrical components including a circuit breaker (100) coupled to said frame assembly and having at least one set of main contacts (110) and at least one arc chute (124) associated with set of main contacts; and said arc chute (124) extending beyond said frame assembly, whereby arc gasses traveling from said arc chute are necessarily exhausted into said gap between said frame assembly and said enclosure.

Kuhn et al. does not teach an arc path assembly having a hollow member having at least one open end, said hollow member in fluid communication with said arc chute; and said hollow member extending beyond said frame assembly, whereby arc gasses

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traveling from said arc chute through said hollow member are exhausted into said gap between said frame assembly and said enclosure.

Young et al., in Figures 4 & 5, teaches a circuit breaker venting enclosure gas venting system including an arc path assembly having a hollow member (78) having at least one open end (90), said hollow member in fluid communication with an arc vent (42); and said hollow member extending beyond an assembly (10), whereby arc gasses traveling from said arc vent (42) through said hollow member are exhausted from said assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kuhn et al. with Young, by incorporating the arc path assembly of Young into the device of Kuhn et al., for the purpose of containing the molten metal particles and flames caused by an arc while at the same time allowing gas pressure to be relieved.

With regard to claim 2, Kuhn et al. in view of Young discloses the electrical protective device of claim 1. Kuhn et al. further discloses that the at least one arc chute extends generally vertically. Young further discloses that the hollow member extends generally horizontally with respect to the arc vents (42).

With regard to claim 3, Kuhn et al. in view of Young discloses the electrical protective device of claim 2. Kuhn et al. further discloses that the circuit breaker includes three sets of main contacts and said at least one arc chute includes three arc

chutes, one arc chute being associated with each set of main contacts, and Young et al. further discloses the hollow member being coupled to a circuit breaker and wherein said hollow member is in fluid communication with each arc chute.

With regard to claims 4 & 10, Kuhn et al. in view of Young discloses the electrical protective device of claims 1 & 3. Young further discloses that the hollow member is made from a non-conductive material (column 3 lines 32-36).

With regard to claim 5, Kuhn et al. in view of Young discloses the electrical device of claim 4. Young further discloses that the hollow member is made from Lexan® (column 3 lines 32-36), which is a fiber reinforced plastic resin.

With regard to claims 6-9, Kuhn et al. in view of Young discloses the electrical protective device of claims 1 & 5. Young further discloses that the hollow member includes two open ends, each open end extending beyond said assembly wherein each said open end is necessarily disposed within said enclosure.

With regard to claim 11, Kuhn et al. teaches a network protector (10), said network protector having a plurality of electrical components including a circuit breaker (100) disposed on a frame assembly (27) within an enclosure (12), there being a gap between said frame assembly and said enclosure (as seen is Fig. 3), said circuit breaker having at least one set of main contacts (110) and at least one generally vertical arc chute (124) associated with said at least one set of main contacts, whereby

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arc gasses traveling from said arc chutes are necessarily exhausted into said gap between said frame assembly and said enclosure.

Kuhn et al. does not teach an arc path assembly comprising: a hollow member having at least one open end and at least one side opening; said side opening structured to be coupled to said at least one arch chute; and said at least one open end extending beyond said frame assembly, whereby arc gasses traveling from said arc chutes pass through said hollow member and are exhausted into said gap between said frame assembly and said enclosure.

Young et al., in Figures 4 & 5, teaches an arc path assembly comprising: a hollow member (78) having at least one open end (90) and at least one side opening (86); said side opening structured to be coupled to said at least one arch vent (42); and said at least one open end extending beyond said assembly, whereby arc gasses traveling from said arc vents pass through said hollow member and are exhausted from said assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Kuhn et al. with Young, as described above.

With regard to claim 12, Kuhn et al. in view of Young discloses the electrical protective device of claim 11. Kuhn et al. further discloses that the at least one arc chute extends generally vertically. Young further discloses that the hollow member extends generally horizontally with respect to the arc vents (42).

With regard to claim 13, Kuhn et al. in view of Young discloses the electrical protective device of claim 12. Kuhn et al. further discloses that the circuit breaker includes three sets of main contacts and said at least one arc chute includes three arc chutes, one arc chute being associated with each set of main contacts, and Young et al. further discloses the hollow member being coupled to a circuit breaker and wherein said hollow member is in fluid communication with each arc chute.

With regard to claims 14 & 20, Kuhn et al. in view of Young discloses the electrical protective device of claims 11 & 13. Young further discloses that the hollow member is made from a non-conductive material (column 3 lines 32-36).

With regard to claim 15, Kuhn et al. in view of Young discloses the electrical device of claim 14. Young further discloses that the hollow member is made from Lexan® (column 3 lines 32-36), which is a fiber reinforced plastic resin.

With regard to claims 16-19, Kuhn et al. in view of Young discloses the electrical protective device of claims 11 & 15. Young further discloses that the hollow member includes two open ends, each open end extending beyond said assembly wherein each said open end is necessarily disposed within said enclosure.

### ***Response to Arguments***

Applicant's arguments filed 28 JUN 2007 have been fully considered but they are not persuasive. Applicants argue that the rejection of claims 1-20 under 35 U.S.C. § 103

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(a) was improper. Specifically, Applicants argue that combining the Young reference with Kuhn as stated in the previous Office Action would teach against the watertight seal of the Kuhn reference. Applicants are correct that venting the gases of the arc chute out of the enclosure without any valves would teach against the watertight seal of Kuhn. However, it is not the Office's position that the invention of Kuhn in view of Young vents gas from the arc chute to the exterior of the enclosure. In fact, if this were true, the combination would be improper in that it would teach against the gasses being exhausted into the gap between the frame assembly and the enclosure. Rather, it is the Office's position that the arc path assembly taught by Young would be used to carry the gasses and molten metals away the circuit breakers and other electronic equipment located in the frame assembly of Kuhn and into the gap between the frame assembly and the enclosure.

As stated in the previous action, Kuhn teaches all the elements of claim 1 except that a hollow member of an arc path assembly is in fluid communication with the arc chute (124) and that it is the hollow member that exhausts the gasses rather than the arc chutes themselves. As Applicants point out at the top of page 2 of the remarks, Kuhn teaches that the arc gasses are exhausted into the enclosure. As can be seen from Figs. 1A & 3, it appears as though the arc chutes are exhausting the gases into the gap between the frame and the enclosure.

What Kuhn does not teach is that there is any sort path for the gases and molten metals from the circuit breaker to follow to ensure that it exhausts away the frame assembly and the electronic equipment that is located within the frame assembly. As



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Young teaches, there was a known need to carry away the gasses and metals from breakers and electrical equipment located entirely within the frame assembly of Kuhn, prior to Applicants' invention. If one of ordinary skill in the art at the time the invention was made were concerned with exhausting the gasses away from the frame assembly, the Young reference would teach that placing an arc path hollow member (78) in Fig. 5 in fluid communication with the arc chutes of Kuhn would take the gases away from the circuit breakers (100) of Kuhn and away from the frame assembly as well. Comparing the circuit breakers of Kuhn and Young, one can see that both have three arc chutes lined in a row. Placing an arc path over the three arc chutes of Kuhn as taught by Young in Fig. 5 would have the effect of containing the molten metal particles and flames caused by an arc while at the same time allowing gas pressure to be relieved into the gap between the frame assembly and the enclosure, which was given as motivation to combine the two references in the previous action. The invention of Kuhn in view of Young would prevent the molten metals from collecting in the frame assembly and possibly causing a short circuit. The structure (14) in Figure 4 of Young corresponds to the frame assembly of Kuhn in that it contains all of the electrical equipment and is not watertight. As such, in the rejection of claim 1, Young was used to teach exhausting gasses from the frame assembly of Kuhn rather than the watertight enclosure of Kuhn. In regard to Applicants' claim that erroneous hindsight was used while combining the two references, the motivation to combine the two references was found in the references themselves and in this and previous actions, an articulated

description of how the references would be combined has been given. As such, the rejection of claims 1-20 has been upheld.

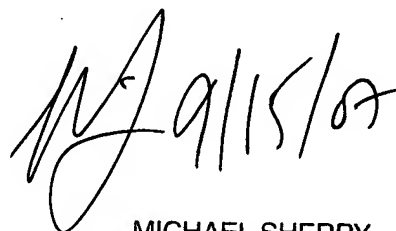
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bauer whose telephone number is 571-272-5986. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB  
11 SEP 2007

A handwritten signature in black ink, appearing to read 'MS 9/15/07', is written over the printed name and title of Michael Sherry.

MICHAEL SHERRY  
SUPERVISORY PATENT EXAMINER